

Pulse Start Metal Halide Lamps

Optimized Metal Halide System for
Greater Efficiency and Lumen Maintenance



***Ideal for Industrial and Retail
High/Low Bays, and Parking Lots***

- ▶ Up to 25% increase in maintained light output over standard metal halide
- ▶ Increased efficacy (up to 120 lpw) equals low total cost of ownership
- ▶ Up to 50% faster warm-up and restrike time
- ▶ Up to 50% increase in life when compared to switch start metal halide (for 175W & 250W versions)



**Now
Available
in 350
Watt!**

PHILIPS

Pulse Start Metal Halide Lamps

Electrical, Technical and Ordering Data (Subject to change without notice)

Bulb Temperature (Max.) . . . 400°C (for 175W, 250W, 320W, 350W & 400W)	Warm-up Time to 90% Full Brightness 2 minutes (175W–400W)
. 430°C (1000W) <3 minutes (1000W)
Base Temperature (Max.) 210°C	Re-start Time for Hot Lamps 4 minutes (175W–400W)
RMS Lamp Operating Current (Amps) Nominal 1.50 (175W) 7–10 minutes (1000W)
. 2.00 (250W)	Base Mogul
. 2.6 (320W)	Operating Position Base-Up ±15° (175W, 250W, 350W, 400W & 1000W)
. 2.83 (350W) Universal (320W)
. 3.25 (400W)	Luminaire Type Enclosed Only (175W, 250W, 320W, 350W & 1000W)
. 4.10 (1000W) Open or Enclosed (400W)
Lamp Current Crest Factor 1.6	Standard Package Quantity 12 (175W, 250W & 320W, 350W)
 6 (400W & 1000W)

Product Number	Ordering Code	ANSI Code	Bulb Size	Bulb Finish	MOL (In.)	LCL (In.)	Rated Avg. Life (Hrs.)	Initial Lumens	Mean Lumens	CCT (K)	CRI
27662-6	MS175/BU/PS	M152/M137/E	ED-28	Clear	8 ⅞	5	15,000	16,000	11,200	3900	62
27661-8	MS250/BU/PS	M153/M138/E	ED-28	Clear	8 ⅞	5	15,000	23,800	16,660	4000	65
38381-0	MS320/U/PS	M154/M132/E	ED-28	Clear	8 ⅞	5	20,000	31,700	23,140	3900	65
38386-9	MS320/C/U/PS	M154/M132/E	ED-28	Coated	8 ⅞	-	20,000	30,100	21,500	3600	70
38387-7	MS350/BU/PS	M131/E	ED-37	Clear	11 ½	7	20,000	37,000	25,900	4000	65
38388-5	MS350/C/BU/PS	M131/E	ED-37	Coated	11 ½	-	20,000	35,000	24,500	3700	65
27816-8	MS400/BU/PS	M155/M128/M135/S	ED-37	Clear	11 ½	7	20,000	44,000	30,800	3900	66
28362-2	MS400/C/BU/PS	M155/M128/M135/S	ED-37	Coated	11 ½	-	20,000	42,000	27,300	3700	70
36019-8	MS1000/BU/PS	M141/E	BT-37	Clear	11 ½	7	15,000	120,000	96,000	3700	65

MOL = Maximum Overall Length LCL = Light Center Length CCT= Correlated Color Temperature (Kelvin) CRI= Color Rendering Index

WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS

Enclosed Fixtures Only Unless Noted; Base Up Operation ±15° Unless Noted
“WARNING: These lamps can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available.” This lamp complies with FDA radiation performance standard 21 CFR subchapter J. (USA: 21 CFR 1040.30 Canada: SOR/DORS/80-381)

If the outer bulb is broken or punctured, turn off at once and replace the lamp to avoid possible injury from hazardous shortwave ultraviolet radiation. Do not scratch the outer bulb or subject it to pressure as this could cause the outer bulb to crack or shatter. A partial vacuum in the outer bulb may cause glass to fly if the envelope is struck.

WARNING: The arc-tube of metal halide lamps are designed to operate under high pressure and at temperatures up to 1000°C and can unexpectedly rupture due to internal or external factors such as a ballast failure or misapplication. If the arc-tube ruptures for any reason, the outer bulb may break and pieces of extremely hot glass might be discharged into the surrounding environment. If such a rupture were to happen, THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.

Certain lamps that will retain all the glass particles should inner arc-tube rupture occur are commercially available from Philips Lighting Company.

RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE. Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.

CAUTION: TO REDUCE THE RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE RESULTING FROM AN ARC-TUBE RUPTURE THE FOLLOWING LAMP OPERATING INSTRUCTIONS MUST BE FOLLOWED:

LAMP OPERATING INSTRUCTIONS

1. Turn off lamps at least once a week for at least 15 minutes in systems which are operating on a continuous basis (24 hours/day-7days/week). FAILURE TO TURN OFF LAMPS FOR THE MINIMUM RECOMMENDED TIME MAY INCREASE THE POSSIBILITY OF AN INNER ARC-TUBE RUPTURE.
2. RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE. Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.
3. Use only in an enclosed fixture capable of withstanding particles of glass having temperatures up to 1000°C, unless otherwise noted.
4. Before lamp installation/replacement, shut power off and allow lamp and fixture to cool to avoid electrical shock and potential burn hazards.
5. Use only auxiliary equipment meeting Philips and/or ANSI standards. Use within voltage limits recommended by ballast manufacturer.
 - A. Operate lamp only within specified limits of operation.
 - B. For total supply load refer to ballast manufacturers electrical data.
 - C. All Pulse Start mogul based lamps require a socket rated to withstand a 4,000 volt pulse.
6. Periodically inspect the outer envelope. Replace any lamps that show scratches, cracks or damage.
7. If a lamp bulb support is used, be sure to insulate the support electrically to avoid possible decomposition of the bulb glass.
8. Protect lamp base, socket and wiring against moisture, corrosive atmospheres and excessive heat.
9. Time should be allowed for lamps to stabilize in color when turned on for the first time. This may require several hours of operation, with more than one start. Lamp color is also subject to change under conditions of excess vibration or shock, and color appearance may vary between individual lamps.
10. Lamps may require 2 to 4 minutes to relight if there is a power interruption.
11. Take care in handling and disposing of lamps. If an arc tube is broken, avoid skin contact with any of the contents or fragments.
12. Use this lamp only in fixtures that contain a Pulse Start metal halide ballast and are specifically designed for use with Pulse Start metal halide lamps.

